

How Peers Make a Difference:

The Role of Peer Groups and Peer Relationships in Personality Development

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Abstract

Peers are a pervasive aspect of people's lives, but their role in personality development has rarely been considered. This is surprising, given that peers are promising candidates to explain personality development over the entire lifespan. Due to the lack of clear-cut definitions of peers, we first elaborate on their defining criteria and functions in different life phases. We then discuss the role of peers in personality development across the lifespan. We advocate that an integration of social group perspectives and social relationship perspectives is essential to understand peer effects on personality development. Group socialization theory is particularly suited to explain developmental differences *between* groups as a result of group norms. However, it is blind towards differences in development *within* peer groups. In contrast, the PERSOC framework is particularly suited to explain individual differences in development *within* groups as a result of specific dyadic peer relationship experiences. We propose that a conjunct consideration of peer group effects and dyadic peer relationship effects can advance the general understanding of personality development. We discuss examples for a cross-fertilization of the two frameworks that suggest avenues for future research.

Keywords: personality development, peers, peer groups, dyadic relationships, lifespan perspective

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Peers are a pervasive aspect of our social life. They entail a broad range of people who surround us in our everyday lives from early childhood until old age. Members of the same classroom, community, work or sports team constitute important and highly salient peer group contexts. In addition, we seek and maintain a number of dyadic relationships with peers, such as with a close friend, an acquaintance, a flat mate, a colleague, a fellow-student, or a neighbor. Considering the omnipresence of peers in our lives, it is likely that they influence who we are. This might be particularly true in contemporary society, in which people switch partners more often than in the past and in which families are spread out over larger distances – changes that might render peers an influential social factor.

Researchers have long noted an association between the social environment and the behaviors, feelings, and thoughts of individuals (James, 1890). Their dynamic interplay has been considered to play a key role in personality maturation, because identities are not construed by individuals alone but negotiated in social interaction processes between individuals (Hogan & Roberts, 2004; Swann, 1987). Hence, it is essential to account for the social context that we are embedded in to understand personality development (Leary & Baumeister, 2000; Neyer & Lehnart, 2007). Nevertheless, the role of peers in personality development has surprisingly been largely neglected.

One of the few approaches that explicitly considered the role of peers in personality development is group socialization theory (Harris, 1995). The theory posits that with children's advancing age, outside-the-home socialization that takes place in peer groups becomes an increasingly important determinant of adolescents' personality development. We contend that this theory makes a great contribution to understand peer influences on personality development, but we aim to extend this approach in two ways. First, group socialization theory focuses on developmental processes in childhood and adolescence,

whereas it does not provide insights into the nature and function of peers across the entire lifespan that are, however, likely to play a role beyond adolescence. Second, it focuses on peer group processes to explain developmental differences that occur *between* different peer groups, whereas it neglects individual differences in development *within* such groups.

However, based on current empirical evidence, we propose that peers account for individual differences in personality development *between* and *within* peer groups across the entire lifespan. For instance, recent longitudinal studies showed that life experiences involving different peer contexts such as graduation (Bleidorn, 2012), military service (Jackson, Thoemmes, Jonkmann, Lüdke, & Trautwein, 2012), or occupation (Denissen, Ulfers, Lüdtker, Muck, & Gerstorf, in press; Wille & De Fruyt, 2014) influence personality development beyond adolescence. Furthermore, these studies not only consolidated developmental differences *between* individuals in distinct educational or vocational contexts, but they also revealed substantial variance *within* groups of individuals who shared the respective experiences. To date, considerable shares of these effects are not yet well explained.

We propose that peer influences in the context of these life experiences are potent factors to unravel more of this unexplained variance and to better understand personality development across the lifespan. For instance, group norms shared among colleagues (e.g., working hard) presumably shape the personality of members of the same group in a specific norm-consistent way (e.g., increases in conscientiousness) and thus, account for developmental differences *between* groups (e.g., groups with steeper versus lower conscientiousness increase). Furthermore, unique dyadic relationship experiences with specific colleagues (e.g., mutual trust) presumably shape the personality of individuals in ways that make them different from other team members (e.g., increases in agreeableness) and thus, promote developmental differences *within* groups (e.g., group members with steeper versus lower agreeableness increase). Hence, the conjoint consideration of peer effects at both levels of analysis, i.e., peer groups and dyadic peer relationships, might provide valuable and

complimentary perspectives for a comprehensive explanation of lifespan personality development.

The aim of the present article is therefore to shed light on peer groups and dyadic peer relationships as sources of individual differences in personality development across the lifespan. To this end, this article starts with a closer look at the nature of peers and how peer relationships can change. In particular, we examine the functions of peers beyond adolescence to establish their relevance as determinants of personality development across the entire lifespan. Starting from there, we draw upon theoretical perspectives and empirical evidence to understand how peers affect personality development across the lifespan. As illustrated above, we propose that it is essential to distinguish between social group processes (e.g., group socialization theory; Harris, 1995) and specific dyadic relationship experiences within groups (e.g., PERSOC; Back et al., 2011). We explicate how the integration of peer effects at both the group level and the dyadic level will help to advance the general understanding of personality development and how this will open up new research perspectives.

Lifespan Perspectives on Characteristics and Functions of Peers

Unlike for other relationship categories such as kinship or marriage, the definition of peers is not clear-cut. Researchers, particularly when hailing from different disciplines, consider different characteristics of peers as the defining ones. One reason is the heterogeneity of peers as they entail a broad range of people, such as friends, neighbors, flat mates, classmates, or colleagues. Defining peers is further complicated as their characteristics and functions can change over the lifespan. However, a common groundwork of what peers are is needed for research on peer effects on personality development. Therefore, the following section provides a lifespan perspective on the characteristics and functions of peers.

Characteristics of Peers Across the Lifespan

Previous research proposed that social environments can be studied either on the individual or the dyadic level (Back & Kenny, 2010; Kenny, 1994). Accordingly, we

distinguish between peer characteristics (i.e., individual level) and peer relationship characteristics (i.e., dyadic level), although they are not entirely independent. As the following discussion will show, this distinction is particularly indicated because the importance of individual peer characteristics may change, whereas the importance of core dyadic peer relationship characteristics remains the same across the lifespan.

Individual peer characteristics. In a general online dictionary, peers are defined as “belonging to the same societal group especially based on age, grade, or status” (Merriam-Webster.com, 2011). Similarly, research demonstrated that peers tend to resemble each other concerning individual characteristics. This is called homophily and is captured in the notion that “birds of a feather flock together” (McPherson, Smith-Lovin, & Cook, 2001). In younger life phases, peer groups tend to be homogeneous concerning individual characteristics such as gender, age, socioeconomic status, and ethnicity. For instance, children and adolescents tend to segregate into groups of the own gender and age (Maccoby, 1990). This homogeneity decreases from middle adolescence on (Lempers & Clark-Lempers, 1993). In adulthood, peer networks become much more gender-integrated than in adolescence (Marsden, 1987). Similarly, age homogeneity decreases with the decreasing influence of institutions that create opportunities for contact with peers of the same age, such as school (Feld, 1982).

Other stratifying individual variables are socioeconomic status (Louch, 2000) and ethnicity (Titzmann & Silbereisen, 2009). Some data even suggests that peers tend to be homogeneous in personality, attitudes, and behavioral characteristics, but evidence is less consistent than for age or ethnicity (Urberg, Degirmencioglu, & Pilgrim, 1997). In sum, the importance of specific individual peer characteristics (e.g., gender, age, ethnicity) changes over the lifespan. Therefore, they may be useful to describe peers in a given life phase, but they do not qualify as defining criteria across the lifespan.

Dyadic peer relationship characteristics. Social relationships are relatively stable interaction patterns of at least two people that provide the fundament for reciprocal

interpersonal expectations (Hinde, 1979). The nature of peer interaction patterns across different life phases has not yet been thoroughly specified. A general online dictionary defines peer relationships as being characterized by “equal standing with another” (Merriam-Webster.com, 2011). Interestingly, this lay definition corresponds with social exchange theory (Blau, 1964), which refers to resource-based exchanges. We propose that peer relationships function predominantly according to the principle of equality matching, which is one of Fiske’s (1992) four elementary forms of social relationships. This implies that resource exchanges in peer relationships are equivalent as peers are entitled to the same amount of giving and receiving, for instance in terms of affection and support. Hence, peer relationships are reciprocal and peers expect and keep track of an even balance (see Clarks & Mills, 1979).

Several arguments corroborate the qualification of equality matching as primary criterion of peer relationships. First, reciprocity processes are more common in peer relationships than in other relationships, such as among family members (Bugental, 2000). Second, reciprocity is important for the continuation of peer relationships. Unbalanced peer relationships are likely to be ended, because imbalance impairs relationship satisfaction (e.g., Neyer, Wrzus, Wagner, & Lang, 2011). Third, interpersonal exchange based on equity is a universal characteristic of peer relationships that is evident in all cultures (Cosmides & Tooby, 1992). Finally, equality matching defines both dyadic relationships and peer groups that may be relevant for individual development: Equality matching at the relationship level occurs in the form of peers forming dyadic relationships at eye level, which can initiate individual processes of social exchange. For instance, two classmates sitting next to each other start to help each other with their homework. Equality matching at the group level is expressed in group norms and standards that guide behavior and development of all group members and serve as a reference to social comparisons. For instance, colleagues who comply with their teams’ group norm “work hard, play hard” by working long hours and joining for after work drinks are more highly respected in the team than those who do not comply to this norm.

Another important finding that highlights the role of equality matching is that it characterizes peer relationships across the entire lifespan (Hartup & Stevens, 1997). However, it should be noted that the concrete manifestations of social exchanges may take different forms across the lifespan, such as self-disclosure in young adulthood (Carbery & Buhrmester, 1998) and practical support in old adulthood (Ingersol-Dayton, Morgan, & Antonucci, 1997). In sum, in contrast to individual peer characteristics that can change over the lifespan, equality matching is persistent and thus, qualifies as a defining criterion of peer relationships.

It should be noted, however, that although equality matching is the core characteristic that applies to all peer relationships across the lifespan, not all peer relationships are the same. Other relationship characteristics can work in concert with equality matching and shape peer relationships in different ways. For instance, according to Fiske's (1992) taxonomy, communal sharing (i.e., equivalent treatment and altruistic behavior) is likely to occur in close peer relationships, such as with best friends. Authority ranking (i.e., paying attention to and distributing resources based on hierarchical positions) might be found in relationships between peers with low and high social status (i.e., peer group leaders) that frequently involve dominant and submissive behaviors (e.g., Savin-Williams, 1979). Following Harris (1995), such peer status differences are the main sources of individual differences in development within groups, which will be discussed later on.

Another important and very salient characteristic that lay people often use to describe different kinds of peer relationships is relationship closeness, which is also described as the strength of relationship ties (e.g., strong versus weak ties; Granovetter, 1983) or in terms of core versus peripheral relationships in one's social network (Kahn & Antonucci, 1980). Peer relationships can greatly vary in their closeness from rather weak relationships, such as with acquaintances, to very close ones, such as with best friends (Trinke & Bartholomew, 1997). Social convoy theory posits that close relationships are rather stable over the lifespan (i.e., close friends persist in the network), whereas less close relationships fluctuate more in

response to life transitions (e.g., acquaintances get replaced; Antonucci, Fiori, Birditt, & Jackey, 2010). In contrast, socioemotional selectivity theory (Carstensen, 1995) emphasizes the importance of close relationships later in adulthood to pursue emotion regulation goals that then become increasingly important. Evidence comes from research demonstrating network size decreases and an increasing focus on few close relationships across adulthood (Lang, Staudinger, & Carstensen, 1998; Wrzus, Wagner, Hänel, & Neyer, 2013).

In sum, peers are a heterogeneous relationship category, because they include a broad range of people and the kind of people that are considered peers differ across the lifespan. However, equality matching is a central characteristic of all kinds of peer relationships across the entire lifespan, which makes equality matching a defining criterion of peer relationships. Nevertheless, the specific manifestations of equality matching can vary over the lifespan and other relationship qualities can work in concert with equality matching to shape peer relationships in different ways.

Functions of Peers Across the Lifespan

We now turn to alternating functions of peers across the lifespan. Because lifespan theories are missing, we focus on empirical evidence on peer functions in different life phases.

Childhood and adolescence. The importance of peer relationships and particularly peer groups sharply increases during the transition from childhood to adolescence. About 75% of preschool children are involved in reciprocal friendships with their peers, which rises to 80-90% in teenage years when adolescents enter larger peer ecologies during the transition to middle school (Hinde, Titmus, Easton, & Tamplin, 1985). When adolescents shift their attention from parents to peers, peers become a core influence for their development (Harter, 2012). This is in line with group socialization theory that proposes that peer groups play a major role in children and adolescents' socialization, which goes beyond dyadic relationships (Harris, 1995). This is reflected in findings showing that adolescents spend an increasing amount of time with peer groups and they become highly, and more than people of other ages,

concerned with obtaining social acceptance in peer groups (see Brown, 2011). In addition to peer groups, close dyadic relationships with peers also increase during the transition from childhood to adolescence. Adolescents start to form close ties with peers, which prepares them to engage in important relationships later on, such as with romantic partners (McCormick, Kuo, & Masten, 2011).

Emerging and young adulthood. Research suggests that peers serve an important model function for romantic relationships. Relationships with parents are not directly replaced by romantic relationships; instead, they seem to influence romantic relationships in emerging adulthood via peer relationships. For instance, it was found that young adults transfer attachment-related functions from parents to peers (Fraley & Davis, 1997). Consistently, emerging adults' attachment-styles with peers were similar to those with parents and romantic partners, whereas attachment styles with parents and partners were less similar to each other (Furman, Simon, Shaffer, & Bouchev, 2002). This is in line with results suggesting that securely- (versus insecurely-) attached children showed more secure attachment-styles with peers during adolescence, which predicted a more positive relationship quality of romantic relationships during emerging adulthood (Simpson, Collins, Tran, & Haydon, 2007). Together, this suggests that across emerging and young adulthood, relationships with parents influence relationships with peers that in turn influence relationships with romantic partners; hence, peer relationships bridge the gap between parental to romantic relationships.

Peer relationships are also relevant in the context of other characteristic life experiences in young adulthood and can even mediate their effects on personality development. For example, a recent study that investigated the impact of international mobility experiences on personality development revealed substantial differences in the developmental trajectories of student sojourners who spent several months at universities abroad and control students who stayed at home. Interestingly, developmental differences between sojourners and controls could largely be explained by differences in new

international peer relationships (Zimmermann & Neyer, 2013). This finding corroborates that peers play an important role beyond adolescence into adulthood.

Middle and old adulthood. Research on the role of peers in middle and old adulthood is limited. Yet, it might be that the number of peers decreases in adulthood. Evidence suggests that older adults have fewer social interaction partners than younger adults (Lang & Carstensen, 1994), whereas the number of very close relationships remains the same (Mickler & Staudinger, 2008). This is in line with social convoy (Antonucci et al., 2010) and socioemotional selectivity theory (Carstensen, 1995). Accordingly, peers may serve important and changing roles in later life phases. The impact of larger peer groups may decrease due to the decreasing role of information acquisition goals. In contrast, few close dyadic relationships with long-term friends can satisfy the increasing need for emotion regulation. Research on friendships suggests that the quality of peer relationships increases across adulthood, which may also help to satisfy this need (Birditt, Jackey, & Antonucci, 2009).

Close and positive peer relationships may even become more important across adulthood when faced with age-related losses (Matt & Dean, 1993). It is likely that after widowhood and divorce, close peers take over important functions that were previously provided by partners. Although widowhood and retirement may lead to an initial decrease in social contact, it may also trigger increases in peer activities to compensate for the loss (Antonucci, Ajrouch, & Birditt, 2006; van Tilburg, 1992). Consistently, widows and widowers tend to see friends much more regularly than their married, divorced, or single counterparts (Wagner, Schütze, & Lang, 1999). Such compensatory increases in peer contact may be highly adaptive given that having friends increases social and psychological adjustment in old age (Adams & Blieszner, 1995).

In sum, a closer look at the role of peers in different life phases revealed that peers matter across the entire lifespan, including later life phases. However, their functions are subject to change across the lifespan. Considering this, it is likely that peers play a role in

personality development across the lifespan, which will be discussed as follows.

The Role of Peer Groups and Peer Relationships in Personality Development

Group socialization theory (Harris, 1995) is one of the few approaches that explicitly consider the role of peers in personality development. As outlined before, it posits that with children's advancing age, socialization in peer groups becomes an increasingly important determinant of personality development that accounts, for example, in large parts for personality differences between siblings. Even though siblings may as well experience environmental differences within the family (called unique niches or microenvironments; Dunn & Plomin, 1990), birth-order studies and studies that included children with and without siblings suggest that intrafamilial influences cannot fully account for the observed non-genetic differences that make siblings different (Bleske-Rechek & Kelley, 2014; Harris, 2000). Group socialization theory proposes that siblings who grow up in the same family become different from each other not only because 50% of their genes differ, but also because they belong to different peer groups (Harris, 1995).

Building on Harris (1995) and in view of the previous review that sustained the importance of peers beyond adolescence, we contend that peers account for a substantial share of variance in lifespan personality development. In particular, we suggest that the distinction between social group (i.e., group-level) and dyadic relationship perspectives (i.e., relationship-level) is essential for understanding peer effects on personality development. Peer group processes of within-group assimilation lead to peer group members' personalities becoming more similar over time; at the same time, between-group differences increase. Nevertheless, peer group members also differ in their personality development, which is driven by unique dyadic relationship experiences. In the following sections, we will first address group-level effects and elaborate on how peer group processes account for *between-group* differences. We will then turn to relationship-level effects and delineate how specific dyadic relationship experiences determine individual differences *within* peer groups. We will

conclude with examples that illustrate future research prospects that capitalize on the integration of both research perspectives.

Group-Level Effects on Personality Development

Group socialization theory explains peer effects on personality development by the means of social group processes of assimilation and differentiation (Harris, 1995). Assimilation describes the process of adopting the groups' rules, standards, and beliefs that guide behaviors, thoughts, and feelings, which makes group members becoming more similar over time. Kerr and colleagues (1994) provided a classic example of this process. They observed that formerly inhibited male children became on average less shy and fearful from 6 to 16 years, whereas female children did not substantially change in those characteristics. The researchers explained their results by pointing to the respective peer group norms that accept inhibited behavior of adolescent girls but not of boys. The role of peer group norms for behavior has also been underlined by research on social networks that for instance, found network effects on substance consumption (Christakis & Fowler, 2008; Rosenquist, Murabito, Fowler, & Christakis, 2011). Such group-determined behaviors, in turn, are presumed to accumulate in the long run and result in personality trait development (Roberts & Jackson, 2008). Hence, the outlined group assimilation processes serve to explain developmental differences *between* groups.

In contrast, group socialization theory remains rather vague regarding group differentiation processes that make group members dissimilar or, in other words, account for *within-group* differences in personality development. Differences in group status and social comparisons within groups are presumed to affect development. Although some empirical evidence points to the long-term implications of such differentiation processes (Rose, Swenson, & Waller, 2004; Weisfeld & Billings, 1988) more research is needed to substantiate their role in lifespan personality development. Hence, although group-level processes of group differentiation provide some indications for the explanation of differences *within* a peer

group, group socialization theory is blind towards an additional source of within-group variance, namely specific dyadic peer relationships.

Relationship-Level Effects on Personality Development

Social relationship theories such as the Social Relationship Model (SRM; Kenny, 1994; Kenny & LaVoie, 1984) or the PERSOC framework (Back et al., 2011) provide valuable perspectives on peer relationship-level effects on personality development that add to the explanation of individual differences in development *within* peer groups. According to the SRM, dyadic relationships differ from one another in terms of dyad-specific interaction patterns that are determined by three different components: actor parameters, partner parameters, and characteristics that are unique to a specific dyadic relationship. For example, mutual judgments of likability of two students of the same classroom are determined by three factors: (1) a general tendency of the rater to perceive other people as likable (*actor* or *perceiver* effect), (2) a general tendency of the rated target to be perceived as likable by others (*partner* or *target* effect), and (3) unique characteristics of the respective dyadic relationship. The latter is systematic rating variance that is not explained by general tendencies of the raters or the targets, but is unique to the particular perceiver-target dyad (*relationship* effect). The same logic applies to interpersonal behaviors between peers: they are also determined by general behavioral tendencies of actors, partners, and the characteristics of their relationships.

The componential nature of interpersonal behaviors and perceptions is also a central aspect of the PERSOC framework, which particularly focuses on the specific processes of the dyadic personality-relationship interplay. As specified in that framework, relationship dispositions (RDs) and individual dispositions (IDs) influence each other via social interaction units. These units consist of bidirectional interpersonal behaviors and perceptions, which are determined by actor, partner, and relationship effects. According to the PERSOC framework, the specific characteristics that are unique to a dyadic relationship constitute essential determinants of individuals' RDs. If RDs are persistently experienced they can, in

the long run, become IDs and thus, influence personality development.

The above-mentioned research on mutual ratings of likability in classrooms provides an example: If Tom repeatedly experiences feedback that he is liked by his classmate Pete (e.g., a smile, help with homework) this will result in Tom establishing an RD of appreciation, trust, liking, and belonging towards Pete. This might further lead to Tom perceiving himself as a likable person and result in changes in Tom's ID, such as increases in his self-esteem or other personality changes. By contrast, Carl might receive less positive feedback from Pete and thus, develops an RD that reflects coldness and disregard towards Pete. As a consequence, Carl is less likely to establish self-perceptions of being a likable person, which might lead to decreases in his self-esteem (ID). In this regard, peer relationship partners cannot be considered interchangeable and experiences in dyadic relationship are unique.

Indeed, a recent longitudinal study by Reitz, Motti-Stefanidi, and Asendorpf (2014) showed that individual differences in likability nominations by classmates predicted adolescents' self-esteem development and that this effect was mediated by the adolescents' self-perceptions of their likability. Furthermore, results revealed that being liked by classmates of the same immigrant status (i.e., with versus without immigrant background) had stronger effects than being liked by classmates of a different immigrant status. This finding informs our understanding of peer effects on personality in two ways. On the one hand, it highlights the role of social relationship processes: it provides evidence for the role of specific dyadic relationship characteristics (i.e., different peer relationships have different effects on self-esteem development). On the other hand, it corroborates social group perspectives on peer effects (i.e., likability effects on self-esteem depend on group membership). Thus, this study highlights exemplarily that dyadic relationship processes and group effects are inherently intertwined.

Group-Level and Relationship-Level Effects Across the Lifespan

Patterns of stability and change of both peer groups and peer relationships and their

consequences for personality development across the lifespan pose challenging issues for future research. As outlined before, group socialization theory states that group-level effects are particularly important until the end of adolescence and then start to decrease due to the decreasing importance institutional socialization (Harris, 1995). Although research on peer groups beyond adolescence is scarce, it is likely that they still exert effects in later life. During adulthood, social structures such as work teams or residential estates may facilitate peer group experiences that may be psychologically relevant in terms of social identification and adherence to group norms (Deaux, 1996; Turner et al., 1987). Nevertheless, peer group effects in later life may not be as strong as in adolescence, because the family becomes similarly or even more important than peer groups (Hutteman, Hennecke, Orth, Reitz, & Specht, this issue). Future research needs to address stability and change of peer group identifications and their changing relevance beyond adolescence (Ashmore, Deaux, & McLaughlin-Volpe, 2004).

By contrast, peer relationship effects on personality development may increase over the lifespan. Recent research revealed that effects on personality development most likely occur in relationships that reflect self-selected life-styles and circumstances (Mund & Neyer, in press). Given that active person-environment covariation is assumed to increase with age (Scarr & McCartney, 1983), individuals may be more likely to choose peers (i.e., active person-environment covariation) and to be chosen by peers (i.e., reactive person environment covariation) that better fit their personalities the older they get. For instance, an adult who scores high on openness is increasingly likely to seek stimulating social environments with people that are also open. This may explain, for example, findings showing that young adults who live with roommates are higher in openness and show steeper increases in openness as compared to those who lived with their parents (Jonkmann, Thoemmes, Luedke, & Trautwein, 2014). Hence, peer-relationship effects on personality development can be expected to become even stronger the more these relationships are self-selected. Beyond that, such self-selection processes may result in more persistent and long-term oriented peer relationships

that provide individuals with more stable social environments than in earlier life phases. Because environmental effects on personality development are more likely in stable than in changing life conditions (Caspi & Moffit, 1993), long-term peer relationships may gain increased influence on personality development when people grow older.

Unfortunately, little is known about the impact of different types of peer relationships on personality development across the lifespan. Yet, it is possible that the impact of peer relationships varies depending on relationship closeness among peers. Previous studies in young adulthood indicated that relationship effects on personality development are particularly likely to occur in close relationships such as with romantic partners (Neyer & Lehnart, 2007) and with friends (Mund & Neyer, in press).

Taken together, we suggest that the relative impact of peer group effects on personality development may decrease from the end of adolescence on. At the same time, effects of specific peer relationships may gain importance when individuals grow older. This may be particularly true in contemporary society, as close and extended family members increasingly live apart (Michielin, Mulder, & Zorlu, 2008) and older adults may thus have to rely more strongly on peers today than ever before.

Beyond that, the relative importance of peer group and peer relationship effects on personality development may also vary across traits. For instance, several studies reported effects of education and work experiences on the development of conscientiousness (Bleidorn, 2012; Specht, Egloff, & Schmukle, 2011; Wille & DeFruyt, 2014). As outlined above, these effects may be due to the adoption of peer group norms. In contrast, it seems that other traits such as neuroticism are rather affected by specific social relationship experiences, such as the first romantic relationship (Neyer & Lehnart, 2007). Research on different traits is needed to better understand the unique social experiences at the group and dyadic level that drive the development of specific traits.

To conclude, we propose that peer effects on at least two levels, namely group-level

effects and relationship-level effects, add to the understanding of personality development across the entire lifespan. Individuals (Level 1) are nested in different dyadic relationships (Level 2), which in turn are nested within groups that share the same norms (Level 3). Peer groups regulate individual behavior through the definition of peer group norms that account for differences in personality development *between* peer groups. On top of that, peers are important dyadic relationship partners that determine individual differences in development by specific interaction experiences. Thus, dyadic peer relationships contribute to differences in personality development among members *within* a peer group.

It should be noted, however, that dyadic relationships are not necessarily limited to one's own peer group (an example are cross-ethnic friendships), nor do relationships necessarily exist between all members of a group. Similarly to individuals that differ in terms of their likability (i.e., the number and quality of dyadic peer relationships), peer groups differ with regard to the number and density of dyadic relationships their members maintain. In this regard, it needs to be considered that social group processes such as self-categorization and group identification do not necessarily require personal contact between group members. According to social identity theory, the mere experience of a group membership is sufficient to trigger adherence to group norms (Ashmore et al., 2004; Tajfel & Turner, 1979). Hence, broad social categories, such as ethnic, religious, or generational groups may guide individual behavior by cultural norms even though there is little or no contact between group members (Turner et al., 1987; Weiss & Lang, 2009). However, it seems likely that most peer groups do rather represent social networks with distinct patterns of dyadic relationships (Deaux & Martin, 2003).

In the following, we illustrate how an integration of group-level peer effects and relationship-level peer effects can advance our insights into personality development. We use the example of students' achievement behavior and conscientiousness development to provide a more comprehensive explanation of individual differences in conscientiousness trajectories.

We also discuss open questions and delineate perspectives for future research.

An Integrated Perspective on Peer Effects on Personality Development

Increases in conscientiousness reflect a normative pattern of maturation in young adulthood that is, for example, driven by commitment to educational or professional achievement (Roberts, Caspi, & Moffitt, 2003). Correspondingly, a recent study substantiated increases in conscientiousness in the context of graduation and, at the same time, revealed substantial variance between trajectories that was partly associated with students' achievement behavior (Bleidorn, 2012).

From a group-level perspective, such patterns can be traced back to differences in role expectations that are reflected in group norms on achievement behavior. For example, students in an achievement-oriented peer group might be more prone to engage in norm-consistent achievement behavior and thus, experience steeper increases in conscientiousness than students who belong to a peer group that values school success less. In line with this notion are findings from a longitudinal study on immigrant adolescents that show that being involved with the peer group of the host culture shapes their personal development differently than being involved with the peer group of their heritage culture (Reitz, Motti-Stefanidi, & Asendorpf, 2013). This illustrates that processes of peer group assimilation help to understand personality development in terms of *between-group* differences.

Group-level perspectives also offer some explanations for *within-group* differences in conscientiousness development, such as for steeper increases for group leaders. These different trajectories may be due to differences in in-group status that result from social comparisons between group members. However, future research is needed to understand the concrete processes through which "status in the peer group may leave permanent marks on personality" (Harris, 1995, p. 473).

As outlined above, we contend that characteristics of individual peer relationships add to the explanation of individual differences in personality development above and beyond

peer group effects. According to the interpersonal processes described in the PERSOC model, social interactions with relationship partners can affect both self- and other-perceptions of personality by different means. For example, Pete frequently brings up academic issues in the discussions with his friend Tom and he helps Tom with his homework. As a consequence of these behavioral cues, Tom perceives Pete as ambitious and successful. He therefore treats Pete with increasing appreciation (relationship effect) more than he does with others and more than other people reveal in interactions with Pete. In turn, Tom's feedback of academic admiration, such as his compliments on Pete's success and his reliance on the friend's help in academic matters, make Pete feel uniquely appreciated for his academic merits by Tom and make him think of Tom as an attentive admirer (RD). Because of the interdependence between RDs and IDs, RDs are supposed to gradually change IDs. Hence, feeling appreciated by Tom might boost Pete's self-esteem (ID). Likewise, Tom's unique admiration might lead Pete to further intensify his achievement behaviors, which then promotes an increase in Pete's conscientiousness (ID).

These assumptions are substantiated by recent research on reputations. Reputations are special forms of RDs, which are defined as the way people are generally mentally represented by others. In other words, these representations are not relationship-specific, but based on individual characteristics (target effects) that are shared by many others (Back et al., 2011). For example, Pete might generally be perceived as a successful student by others and might thus enjoy the reputation of a genius. A recent study found that peer-rated intelligence reputations predicted subsequent academic achievement, which sustained the impact of reputations on outcomes that are relevant for personality (Denissen, Schönbrodt, van Zalk, Meeus, & van Aken, 2011).

These examples illustrate that peer effects at the group- and the relationship-level both add to the explanation of personality development. Against this background, the consideration of social groups might be particularly helpful for understanding personality development in

response to life events that do not apply to all members of the population, such as entering military service (Jackson et al., 2012). Because only a rather small proportion of a cohort experiences these events, their effects will be hard to detect if random population samples are used. Future studies should sample adequate (control) peer groups to reveal whether life experiences scripted by behavioral guidelines in peer group norms affect personality development (Neyer, Mund, Zimmermann, & Wrzus, in press; Specht et al., this issue).

Furthermore, future research should as well go beyond a separation of group-level and relationship-level effects and further explore their dynamic interdependence. For instance, peer group contexts likely moderate relationship-level effects in terms of cross-level interactions. Such a cross-level interaction has been found in a recent longitudinal study on immigrant adolescents. Only when adolescents experienced to be disliked by their host-national peers (relationship-level effect), perceptions of high group discrimination (group-level effect) resulted in perceptions of high personal discrimination (Reitz, Asendorpf, & Motti-Stefanidi, 2014). Hence, dyadic relationship experiences and perceptions at the group level exerted an interaction effect on immigrant adolescents' feelings to be personally discriminated against.

Similarly, research on identity negation emphasizes that self-concepts are negotiated in interacting dyads (Swann, 1987). Perceivers shape such interactions in ways that confirm their expectations about targets and targets use interpersonal strategies to realize their self-verification goals (Swann, Griffin, Predmore, & Gaines, 1987). Likewise, peer group contexts might shape the negotiation process by, for example, providing norms on the desirability of certain characteristics and thus influence perceivers' expectations and targets' self-views. This is supported by findings from cross-cultural research showing that priming biculturals' different ethnic groups had effects on their behavior and self-concept (Gardner, Gabriel, & Lee, 1999). Yet, it remains unclear how these results extend to peer group contexts.

Group-level and relationship-level peer effects might further be intertwined in terms

of dyadic relationship processes that transmit group norms. Although previous research has frequently emphasized the relevance of group norms to explain behavior (changes), little is known about the processes by which individuals acquire these norms. A promising avenue for future research on group norm dissemination is to examine dyadic peer interactions in terms of interpersonal perceptions and behaviors described in the PERSOC framework. It is likely that group norms are transmitted in dyads by behavior observation and feedback, which is in line with notions on the role of social feedback for behavior learning (Roberts et al., 2003).

Conclusions

The present review showed that peers are a pervasive aspect of our social lives that impact us from childhood to old age. Whereas individual peer characteristics vary between life phases, equality matching characterizes peer relationships across the entire lifespan. The concrete manifestations of reciprocal exchange can, however, manifest in different forms over the lifespan and thus, the roles and functions of peers can differ across life phases. By pointing to the complex nature of peers and their specific but sustained relevance across different life phases, we aimed to motivate further research and developmentally sensitive approaches. Such studies are needed to compensate for the lack of studies that consider peer effects on personality development across the lifespan.

Peer groups can influence personality development by defining peer group norms that increase similarity among group members and explain differences *between* peer groups. Dyadic peer relationships influence personality development by dyad-specific interaction patterns and relationship characteristics that increase individual differences. As such, they account for differences in personality development *within* peer groups. Future research may further explore the dynamic interplay of group-level and relationship-level peer effects. To conclude, we propose that the integration of group-level perspectives and relationship-level perspectives provides a fruitful basis that contributes to a better understanding of the role of peers in lifespan personality development.

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